It differs from *P. integra* Hald, in having a more elevated, slender and acute spire, less deeply impressed sutures and much finer texture. The aperture is nearly ovate, not ear-shaped, the columella gracefully curved and covered with a thin lamina. It differs from *P. anatina* Lea in being much smaller, lighter colored, the whorls less oblique, lines of growth more visible and being of lighter texture. The shell as a whole, when seen with these species, impresses itself as distinct at a glance.

## Physa cubensis Pfeiffer.

This is a Cuban species found in Florida. I have not seen Pfeiffer's description, but forms kindly sent to me by Prof. Pilsbry may be described as follows:

Mature shell sub-fusiform, light amber, smooth and shining surface, lines of growth scarcely perceptible, whorls five, convex, sutures impressed, spire rising like a cone to an acute apex, aperture elongate ovate, lip not expanded, columella twisted and covered with a callus. Bi-annuan I think.

A peculiarity of this species, as shown by the forms sent to me, is that the immature form is ovate, the last whorl in the adult being somewhat flattened and elongated, thus making the shell sub-fusiform when mature,

## A NEW CALIFORNIAN BITTIUM.

BY W. H. DALL AND PAUL BARTSCH.

Bittium (Elachista) californicum spec, nov.

Shell white, broadly elongate-conic; whorls rounded, falling off more abruptly toward the suture than the summit. The earlier whorls increase less rapidly in diameter, and are more evenly rounded. Base short, well rounded; aperture suboval, effuse and subchannelled anteriorly, with the posterior angle rounded; columella somewhat twisted and slightly revolute.

The ornamentation consists of about 14-16 broad and low axial folds, which gradually become obsolete on the periphery and base,

and on the whorls three or four impressed spiral lines, which are equally apparent on the ribs and intercostal spaces.

This species occurs both recent and fossil in California. Recent shells appear more slender with fewer ribs, 12-14. The type is a fossil specimen from Dead Man's Id. off San Pedro, Cala., and has 8 whorls which measure: long 5.3 mm., diam. 2.2 mm. A recent shell of 10 whorls measured 6.0 mm., diam. 2.1 mm.

## LIMNAEA AURICULARIA IN AMERICA.

## BY FRANK COLLINS BAKER.

Some weeks ago Mr. Herbert E. Walter, instructor in Biology in the North Division High School, brought me several specimens of a Limnaea which was new to the fauna of the United States. Upon inquiry, the locality was given as the propagating green-house of Lincoln Park. A few years ago Miss Marie LaGrange, a pupil in the North Division High School, found a number of the same species in a lily pond in the park, the water of which was artificially heated to give the necessary warmth for certain tropical plants, the temperature being above 90° Fahr.

Comparison with the shells in the Academy's collection showed the species to be Limnaea auricularia, and an inquiry of the park gardener brought to light the fact that certain plants had been recently imported from Belgium. This information at once removed the mystery surrounding the sudden appearance of this shell in the park, and shows how easy it is at the present time to transport a species from one continent to another, especially if it be a pulmonate. The shells of *L. auricularia* are about an inch in length, of a deep corneous color, and are rather thin. When alive, the mantle of the animal is seen through the shell to be made up of dark and light spots arranged irregularly. The animal appeared rather active, moving about the aquarium with a steady, gliding motion. The heart pulsations were 34 per minute.

It may also be of interest to state that the following introduced species have been found in the greenhouse or in the lily ponds: Testacella haliotoidea, Limax maximus and L. flavus, Vitrea draparnaldi and Limaea auricularia.